SUPPORT FOR THE AMENDMENTS

The specification has been amended to submit a substitute Sequence Listing. The nucletotides at positions 344, 345, 944 and 945 have been corrected to read C, T, T and C, respectively. As described at page 2, lines 10-14 of the specification, SEQ ID NO: 2 represents the sarcosine oxidase gene from Bacillus genus disclosed in JP 5-115281, a copy of which is submitted herewith. In that Japanese application, the sequence is listed correctly, see page 10, column 18, SEQ ID NO: 2

Newly-added Claims 11 and 12 are supported by the specification and Claims 5-6.

No new matter is believed to have been added to the present application by the amendments submitted above.

REMARKS

Claims 11 and 12 are now pending. Favorable reconsideration is respectfully requested.

The rejection of Claim 6 under 35 U.S.C. §102(b) over Nishiya et al. is respectfully traversed.

Claim 6 has been canceled. Claim 12 corresponds to Claim 12, but embodiment (c) recited in Claim 6 has been deleted. Accordingly, this ground of rejection does not apply to Claim 12. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 1-4 under 35 U.S.C. §112, first paragraph, is believed to be obviated by the cancellation of those claims. Accordingly, withdrawal of this ground of rejection is respectfully requested.

The rejection of the claims under 35 U.S.C. §112, second paragraph, is believed to be obviated by the amendments submitted above. The claims have been amended as suggested by the Examiner. Accordingly, in view of the amendments submitted above, the claims are definite within the meaning of 35 U.S.C. §112, second paragraph. Therefore, withdrawal of this ground of rejection is respectfully requested.

The objection to the drawings is respectfully traversed.

Regarding Fig. 1, experimental conditions when the data shown in that figure were collected are described in page 7, line 4 to page 8, and line 7, and page 11, lines 15-23. Specifically, the enzyme was incubated for 5 hours at 25°C at pH shown in Fig. 1, and then, its activity was measured when reaction was carried out at 37EC for 10 minutes.

Regarding Fig. 2, as described in page 11, line 24 to page 12, line 3, the data as shown in that figure was collected through an enzyme reactions carried out in the presence of 100 mM sarcosine, 0.2 mM Toos, 0.16 mM 4-aminoantipyrine and 10 U/ml peroxidase in each of the following buffers for 10 minutes.

50 mM MES-NaOH (pH 5.5, 6.0, 6.5).

50 mM potassium phosphate buffers (pH 6.5, 7.0, 7.5, 8.0)

50 mM Tris-HCl buffer (ph 8.0, 8.5, 9.0)

50 mM CHES-NaOH buffer (ph 9.0, 9.5, 10.0)

Although the reaction time "10 minutes" is not described in pages 11 and 12, one would readily discern this reaction time form descriptions of page 7, line 4 to page 8, line 7, especially page 7, line 27. In page 7, line 4 to page 8, line 7 of the present specification, where a general method for measuring the activity of the enzyme according to the present invention is described.

Regarding Fig. 3, as described in page 12, lines 4-8, Fig. 3 shows activities of the enzyme according to the present invention when reacted with 100 mM sarcosine in the presence of 100 mM Tris-HCl (pH 7.7) at different temperatures, for 10 minutes. Except for the final concentration of the buffer solution and reaction temperatures, this reaction condition is identical to that described in page 7, line 4 to page 8, line 7 of the present specification.

Regarding Fig. 4, experimental conditions where the data shown in Fig. 4 were collected are described in page 7, line 4 to page 8, line 4, and page 12, lines 8-12. Specifically, the enzyme was treated using 50 mM potassium phosphate buffer (pH 7.5) for 10 minutes at different temperatures shown in Fig. 4, and then, its activity was measured when reaction was carried out at 37°C at pH 7.7 for 10 minutes.

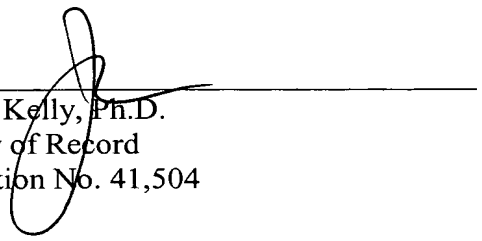
Regarding Fig. 5, as described in page 12, lines 19-24, for the purpose of collecting the data shown in Fig. 5, wild-type and modified sarcosine oxidases 1.2 U/ml each were subjected to reaction with 5 μM of sarcosine at 37°C, pH 6.5. The composition of the reaction solution was 50 mM MES, 60 mM NaCl, 0.2 mM Toos, 0.16 mM 4-aminoantipyrine, and 20 U/ml peroxidase. Thus, the OD measurement was carried out at 7°C, pH 6.5. Also, the letter "m" in Fig. 5 means "mili". For example, if OD555nm is 0.001, then mOD555nm is 1.

Finally, Applicants submit herewith a substitute Sequence Listing and a corresponding computer-readable Sequence Listing. The sequence information recorded in the corresponding computer-readable Sequence Listing is identical to the paper copy of the substitute Sequence Listing. In the original Sequence Listing submitted in the present application, nucleotides 344 and 345 of SEQ ID NO: 2 and nucleotides 944 and 945 of SEQ ID NO: 2 were inadvertently inverted. Therefore, the submission of the substitute Sequence Listing herewith serves to correct this error. Support for all of the sequences listed in the substitute Sequence Listing is found in the foreign priority application, JP 5-115281 (copy submitted herewith). No new matter is believed to have been introduced by the submission of the substitute Sequence Listing and the corresponding computer-readable Sequence Listing.

Applicants submit that the present application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



James J. Kelly, Ph.D.
Attorney of Record
Registration No. 41,504

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)